

Title (en)

INJECTION MOLDING PROCESS FOR MOLDING MECHANICAL INTERLOCKS BETWEEN MOLDED COMPONENTS

Title (de)

EINSPRITZFORMUNGSVERFAHREN ZUM FORMEN VON MECHANISCHEN SPERREN ZWISCHEN GEFORMTEN KOMPONENTEN

Title (fr)

PROCÉDÉ DE MOULAGE PAR INJECTION DE COUPLAGES MÉCANIQUES ENTRE DES ÉLÉMENTS MOULÉS

Publication

**EP 2089206 A4 20110112 (EN)**

Application

**EP 07809038 A 20070504**

Priority

- US 2007010833 W 20070504
- US 74643806 P 20060504

Abstract (en)

[origin: WO2007145732A2] A two-shot or multi-shot multi-material injection molding process is provided. The process allows dissimilar materials to be injection molded to form a single, injection molded part by creating a structural interlock between the materials to prevent the materials from separating. The structural interlock is formed by forming at least one interlock cavity adjacent to a interfacial surface of a first portion of a molded part molded from a first material, and injecting a second, different material into the mold so that the second material flows into the interlock cavity and fills it. Solidification of the second material in the interlock cavity formed by the first material creates the structural interlock between the two materials.

IPC 8 full level

**B29C 45/14** (2006.01); **B29C 45/16** (2006.01)

CPC (source: EP US)

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Citation (search report)

- [X] GB 2404895 A 20050216 - LEAR CORP [US]
- [XI] DE 10252648 A1 20040527 - THEYSOHN FORMENBAU GMBH [DE]
- [XI] JP S57189834 A 19821122 - CANON KK
- [X] JP S5557441 A 19800428 - NISSEI PLASTICS IND CO
- [XI] US 5131778 A 19920721 - ASAI SHINGO [JP], et al
- [XI] WO 8606273 A1 19861106 - LSR BABY PROD UK LTD [GB]
- [XI] US 2003178427 A1 20030925 - CHOMIK RICHARD S [US]
- See references of WO 2007145732A2

Cited by

GB2569928A

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